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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------|------------------|
| 10/807,406 | 03/24/2004 | Marten Swart | 449122070000 | 3855 |
| 25227 | 7590 | 10/05/2005 | EXAMINER | |
| MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102 | | | JONES, DIANE ELIZABETH | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2862 | |

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

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|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/807,406 | Applicant(s) SWART, MARTEN | |
| | Examiner Diane E. Jones | Art Unit 2862 | |

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application is in condition for allowance except for the following formal matters:

Specification

2. The following title is suggested: CIRCUIT ARRANGEMENT WITH A LINEAR VARIABLE DIFFERENTIAL TRANSFORMER (LVDT) AS A DISPLACEMENT SENSOR.

3. The disclosure is objected to because of the following informalities: The terms "Sw1 and Sw2" on Page 13, Line 1 do not match the equivalent items in Figure 1. It is suggested that the terms "Sw1 and Sw2" should be changed to read "Ws1 and Ws2". Appropriate correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities: Lines 3-5 state a circuit arrangement which comprises "a linear variable differential transformer as a displacement sensor or force sensor". The term "or" implies that displacement and force are equal and interchangeable quantities. The examiner suggests the language for the above phrase as "a linear variable differential transformer as a displacement

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sensor ", without the use of the phrase "or a force sensor". Appropriate correction is required.

5. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Allowable Subject Matter

6. *Claims 1-11 are allowed.*

Reasons For Allowance

7. The following is an examiner's statement of reasons for allowance:

With respect to Claims 1-11, the prior art fails to point out:

calculating the temperature (Page 22, Line 18),

a current having a trapezoidal characteristic through the primary coil with equally high rising edge and falling edge values (Page 22, Lines 20-21), and sampling values of a rectangular voltage picked up on the primary coil and of a voltage proportional to the current through the primary taken at times at which the trapezoidal current has a constant characteristic (Page 22, Lines 20-27).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mockapetris et al. (5606515) discloses an LVDT with temperature correction (Col. 10, Lines 34-40).

Maher (5777468) discloses and LVDT with correction for temperature instability.

Frazzini et al. (5180979) teaches a position measurement sensor using an LVDT which corrects for pulse distortions (Col. 3, Lines 65 to Col. 4, Line 3).

Patent 5617023 and Pub. No. 2003/0188585 A1 disclose position sensors using LVDT with feedback circuit systems for correction of signals.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

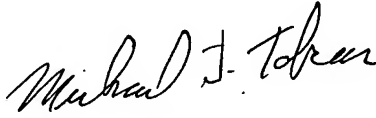
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane E. Jones. The examiner can normally be reached on M-F.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Jones


Michael Tokar
Supervisory Patent Examiner
Technology Center 2800